

IN THE SPECIFICATION:

A substitute specification in clean, unmarked format is attached, as well as a version with markings to show changes made.

IN THE CLAIMS:

Please cancel claims 1, 4-15, 29-34, 41-51, 72-77, 79 and 80 without prejudice.

Please add the following new claims:

81. (New) A processing chamber, comprising:

- a chamber body;
- a substrate support member disposed within the chamber body;
- a retaining ring having one or more feedthrough holes formed therein;
- one or more feedthroughs disposed in the one or more feedthrough holes;
- a chamber lid connected to the retaining ring by the one or more feedthroughs, the chamber lid comprising a first plate coupled to a second plate, wherein the first plate and the second plate form a temperature control channel; and
- a fluid inlet and a fluid outlet formed in the chamber lid, wherein the fluid inlet and the fluid outlet are fluidly coupled to the one or more feedthroughs.

82. (New) The processing chamber of claim 81, wherein the chamber lid further comprises one or more feedthrough pockets in which the one or more feedthroughs are received to connect the chamber lid to the retaining ring.

83. (New) The processing chamber of claim 82, wherein at least one of the one or more feedthroughs comprises an enlarged engagement portion, the enlarged engagement portion being insertable into a portion of a feedthrough pocket.

84. (New) The processing chamber of claim 82, wherein at least one of the one or more feedthrough pockets comprises a pocket shoulder for receiving a sealing element therein.

85. (New) The processing chamber of claim 81, further comprising a fastener adapted to attach the feedthrough to the retaining ring.

86. (New) The processing chamber of claim 81, wherein the retaining ring further comprises one or more fluid passages fluidly connected to the one or more feedthrough holes.

87. (New) The processing chamber of claim 81, wherein each feedthrough comprises:

an axial channel along a portion of a length of the feedthrough; and
one or more transverse ports fluidly connected to the axial channel.

88. (New) The processing chamber of claim 81, wherein the retaining ring further comprises an alignment shoulder adapted to align the chamber lid to the retaining ring.

89. (New) The processing chamber of claim 81, wherein the first plate and the second plate each form a portion of the depth of the temperature control channel.

90. (New) The processing chamber of claim 81, wherein the temperature control channel is continuous between the fluid inlet and the fluid outlet.

91. (New) The processing chamber of claim 81, further comprising one or more feedthrough pockets fluidly connected to the temperature control channel, wherein at least one feedthrough pocket is fluidly connected to a feedthrough, and wherein the feedthrough secures the chamber lid to the retaining ring.

92. (New) The processing chamber of claim 81, wherein the temperature control channel forms a circuitous pattern substantially throughout the chamber lid.

93. (New) The processing chamber of claim 81, wherein the surface area of the temperature control channel comprises between about 30% and about 60% of the surface area of the chamber lid.

94. (New) The processing chamber of claim 81, wherein the temperature control channel is structured and arranged to cover between about 30% to about 60% of the surface area of the chamber lid.

95. (New) The processing chamber of claim 81, wherein the chamber lid comprises a material selected from the group of aluminum oxide, aluminum nitride, silicon carbide, silicon, polysilicon and combinations thereof.

96. (New) The processing chamber of claim 81, wherein the temperature control channel is formed by a groove in one of the plates and a generally smooth face of the other plate.

97. (New) The processing chamber of claim 81, wherein the temperature control channel is formed by at least one groove in each of the first and second plates.

98. (New) The processing chamber of claim 81, wherein the temperature control channel is arcuate, radial, meandering or a combination thereof.

99. (New) The processing chamber of claim 81, wherein a surface of the second plate is textured.

100. (New) A processing chamber, comprising:
a chamber body;

a substrate support member disposed in the chamber body, wherein the substrate support member comprises a first electrode;

an electrode plate comprising a first member coupled to a second member, wherein a surface of the second member is disposed at least partially in an interior portion of the chamber body in opposition to the first electrode, and wherein the first member and the second member form at least one temperature control channel;

a support frame coupled to the first member; and

one or more feedthroughs fluidly connected to the at least one temperature control channel.

101. (New) The processing chamber of claim 100, further comprising a power source coupled to the electrode plate.

102. (New) The processing chamber of claim 100, wherein the electrode plate is comprised of a material selected from the group consisting of graphite, polycrystalline silicon, quartz, glassy carbon, single crystal silicon, pyrolytic graphite, silicon carbide, alumina, zirconium, diamond coated materials, titanium oxide and combinations thereof.

103. (New) The processing chamber of claim 100, wherein the electrode plate is comprised of a metal.

104. (New) The processing chamber of claim 100, further comprising a backing plate coupled to the electrode plate.

105. (New) The processing chamber of claim 104, wherein the backing plate is comprised of a metal and the electrode plate is comprised of a material selected from the group consisting of graphite, polycrystalline silicon, quartz, glassy carbon, single crystal silicon, pyrolytic graphite, silicon carbide, alumina, zirconium, diamond coated materials, titanium oxide and combinations thereof.

106. (New) The processing chamber of claim 100, wherein the first member is directly connected to the second member, and wherein the at least one temperature control channel is formed laterally through the first and second members.

107. (New) The processing chamber of claim 104, further comprising one or more baffle plates disposed between the backing plate and the electrode plate.

108. (New) The processing chamber of claim 100, wherein the one or more temperature control channels are formed in both the first member and the second member.

109. (New) A processing chamber for processing a substrate, the processing chamber comprising:

- a chamber body;
- a substrate support member disposed within the chamber body;
- an electrode plate disposed at least partially in an interior portion of the chamber body in opposition to the substrate support member, wherein the electrode plate forms at least one temperature control channel; and
- a backing plate coupled to the electrode plate.

110. (New) A processing chamber for processing a substrate, the processing chamber comprising:

- a chamber body;
- a substrate support member disposed within the chamber body;
- an electrode plate comprising a first member coupled to a second member, wherein the first member and the second member form at least one temperature control channel disposed at least partially between the first member and the second member, and wherein the second member comprises an electrode and the at least one temperature control channel is distributed across a substantial portion of the electrode plate; and
- a backing plate coupled to the electrode plate.

111. (New) The processing chamber of claim 110, wherein the first member and the second member each form a portion of the depth of the temperature control channel.

112. (New) The processing chamber of claim 110, wherein the temperature control channel is formed by a groove in one of the members and a generally smooth face of the other member.

113. (New) The processing chamber of claim 110, wherein the temperature control channel is formed by a groove in the first member and a groove in the second member.

114. (New) The processing chamber of claim 110, wherein the one or more temperature control channels are arcuate, radial, meandering or a combination thereof.

115. (New) The processing chamber of claim 110, wherein the electrode plate is comprised of a dielectric material, a conductive material, a semiconductive material, or a combination thereof.

116. (New) The processing chamber of claim 110, wherein the first member and the second member are comprised of different materials.

117. (New) The processing chamber of claim 115, wherein the electrode plate comprises a silicon containing material.

118. (New) The processing chamber of claim 115, wherein the electrode plate comprises a metal or alloy thereof.

119. (New) The processing chamber of claim 115, wherein the electrode plate comprises aluminum oxide or aluminum nitride.

120. (New) A processing chamber comprising:

a chamber body;
a substrate support member disposed within the chamber body;
a retaining ring coupled to the chamber body, wherein the retaining ring has a feedthrough hole formed therein;
a chamber lid coupled to the retaining ring, wherein the chamber lid forms a fluid inlet, a fluid outlet, and a temperature control channel, and wherein the temperature control channel is fluidly connected to the fluid inlet and fluid outlet; and
a feedthrough disposed in the feedthrough hole fluidly connected to the temperature control channel

121. (New) A processing chamber comprising:

a chamber body;
a substrate support member disposed within the chamber body;
a retaining ring coupled to the chamber body, wherein the retaining ring has a feedthrough hole formed therein;
a chamber lid coupled to the retaining ring, wherein the chamber lid forms a fluid inlet, a fluid outlet, and a temperature control channel, and wherein the temperature control channel is fluidly connected to the fluid inlet and fluid outlet; and
a feedthrough disposed in a feedthrough hole, wherein the feedthrough is fluidly connected to the temperature control channel, and wherein the feedthrough attaches the chamber lid to the retaining ring.

122. (New) A processing chamber comprising:

a chamber body;
a substrate support member disposed within the chamber body;
a retaining ring coupled to the chamber body, wherein the retaining ring has a feedthrough hole formed therein;
a chamber lid for coupling energy from an energy source into an interior portion of the chamber body, wherein the chamber lid forms a fluid inlet, a fluid outlet, and a temperature control channel, and wherein the temperature control channel is fluidly connected to the fluid inlet and fluid outlet; and